

ABSTRACT OF THE DISCLOSURE

When the CW laser oscillator is employed in the manufacturing process of the semiconductor device, it is expected to obtain the device of high performance. However, the CW oscillator provides only a small beam spot and forms an inferior crystalline region when it is scanned on the semiconductor film. It is necessary to minimize such an inferior crystalline region because it gives a problem in terms of high integration of the semiconductor element. In view of the problem, the present invention is to form a long crystalline region as suppressing the formation of the inferior crystalline region by irradiating the fundamental wave with the harmonic supplementarily (refer to FIG. 1). The present invention also includes a constitution in which a part having high energy density in the fundamental wave is irradiated to a part having low energy density in the harmonic